

Remarks

[Each of the applicant's comments below is preceded by related statements in the action dated May 5, 2008, quoted in small, bold type.]

- **Claims 1-11, 13-30 and 37-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**
 - **With respect to claims 1 and 27 the phrase "providing a food product in a flowable state in which a flowability of the food product under an influence of gravity or a density of the food product is maintained consistently" is rejected as it is unclear if the food product is actually in a state which requires a "flowing property", such as melted chocolate, or if the food product is in a state which is capable of flowing, such as solid chocolate, and as such is capable of being "flowable" under the influence of processing step such as heating.**

The applicant disagrees. The language in claims 1 and 27 is clear. The claim language does not refer to "a food product that is capable of flowing," but recites that the food product is "*in a flowable state.*" (emphasis added) Examples of a food product in a flowable state include a liquid or slurry. (p. 4, line 5)

- **With respect to claims 1 and 27 the phrase "a flowability of the food product under an influence of gravity" is rejected as it is unclear if the food product is actually in a state which requires a "flowing property", such as melted chocolate, or if the food product is in a state which is capable of flowing, such as solid chocolate, and as such is capable of being "flowable" under the influence of processing step such as heating.**

As stated above, claims 1 and 27 require that the food product is "*in a flowable state.*"

- **With respect to claims 1 and 27 the phrase "a density of the food product is maintained consistently" is rejected as it is unclear if the entire food product has one density, i.e. completely melted chocolate or solid chocolate, if "a density" of the food product is with respect to a partially flowable state, i.e. a top layer melted layer. actually "flowing property", such as melted chocolate, or if the food product is in a state which is capable of flowing, such as solid chocolate, and as such is capable of being "flowable" under the influence of processing step such as heating.**

Claims 1 and 27 recite broadly that the "density of the food product, is maintained consistently," and this limitation is distinct from the limitations that the food product is in the flowable state and that the flowability under an influence of gravity be maintained consistently. (Of course, the flowability and density limitations are not mutually exclusive; they can both be met and still fall within the scope of the claims.) The claims are broad enough to encompass possibilities mentioned by the examiner within the density limitation. The entire food could

have one density, for example, Or the food product could be in a state that is capable of flowing and still meet the density limitation. A wide variety of other examples would also fall within the claims.

- The phrase "at room temperature" in claims 17, 24, is rejected, as it is a relative term, which renders the claim indefinite. The term "at room temperature" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is unclear as to what is encompassed by the phrase "at room temperature"; it is unclear as to what degree of difference is encompassed by this phrase, since a walk-in freezer would have one room temperature which is different from the room temperature of a heated environment.

The applicant relies on the ordinary meaning of "room temperature." See, for example, Wikipedia, http://en.wikipedia.org/wiki/Room_temperature:

"Room temperature (also referred to as ambient temperature) is a common term to denote a certain temperature within enclosed space at which humans are accustomed. Room temperature is thus often indicated by general human comfort, with the common range of 7°C (44°F) to 32°C (90 °F), though climate may acclimatize people to higher or lower temperatures. The term can also refer to a temperature of food to be consumed, which is placed in such a room for a given time."

The applicant cannot find any support for an ordinary meaning of "room temperature" to include freezing temperatures within a walk-in freezer or elevated temperatures in a heated environment, as proposed by the examiner.

With respect to claim 24, the applicant has replaced "at a temperature of about room temperature or greater" with --in a temperature range of about 40 to 120°F--. Support for this amendment can at least be found on page 7, lines 1-2.

Claims 1-3, 5, 15-16, 18-19, 21, 24, 26, 27-29, 37 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Waters (637600).

Waters teaches providing a food product in a flowable state (col. 1 lines 61- col. 2 lines 1-2) in which a flowability of the food product under an influence of gravity or a density of the food product is maintained consistently (col. 1 lines 61- col. 2 lines 1-2), applying a jettable media to the food product from an inkjet printer (col. 3 line 63) as a series of fluid drops in a predetermined image (col. 5 lines 8-11) while the food product is in the flowable state in which the flowability of the food product under an influence of gravity or a density of the food product is maintained consistently, and after applying the media, processing the food product to reduce the flowability of the food product under the influence of gravity (col. 4 lines 37-39, col. 1 lines 65). It is initially noted that due to the phrases "flowable"

and "jettable" Waters is taken to positively teach such since Waters teaches melted chocolate, and a food product in a state which is capable of flowing, such as solid chocolate, and as such is capable of being "flowable" under the influence of processing step such as heating. It is further noted with respect to the limitation that the media on the food has a lateral image bleed of about 10% or less after 10 minutes or in 30 minutes that Waters is taken to positively teach this limitation since the image is permanently formed. Waters continues by cooling the food product (col. 4 lines 37-38) enclosing the food product in a container prior to decreasing the gravity flowability (col. 4 lines 35-36), teaching that the media has a viscosity which is greater than a viscosity of the food product at a temperature of the food product during application (col. 4 lines 20-24) and that the media has a water soluble carrier (col. 1 lines 64-67). In addition, the media is insoluble in the food product (col. 4 lines 37-39, col. 1 lines 65), the media includes a visible dye (col. 1 lines 64-67), the food product comprises a dairy product (col. 4 line 35), and that the food product is at a temperature of about room temperature or greater while applying the media (col. 4 lines 34-39)

Claim 1 has been amended to recite "ejecting a jettable media on a surface of the food product from an ink jet printer as a series of fluid drops in a predetermined pattern while the food product is in the flowable state" and "after ejecting the media, reducing diffusion of the jettable media." Support for this amendment can at least be found, for example, in the specification on page 4, lines 9-11, 18-20, and 28. Waters fails to describe these features.

Rather, Waters describes printing on edible paper using an ink jet printer. (col. 3, line 62-63) The edible paper is then bonded to chocolate. (col. 4, lines 25-48) According to one method, the edible paper can be bonded to melted chocolate. (col. 4, lines 34-39) While Waters bonds printed paper to a surface of the melted chocolate, Waters does not describe "ejecting a jettable media on... the food product from an ink jet printer as a series of fluid drops...while the food product is in the flowable state." Bonding printed paper to melted chocolate is not does not amount to ejecting fluid drops on melted chocolate.

Instead of ejecting drops on melted chocolate, Waters ejects food coloring on edible paper, but the edible paper is not a food product in a flowable state.

Furthermore, Waters fails to describe "after ejecting the media, reducing diffusion of the jettable media." Because Waters prints on a solid surface, i.e. paper, Waters is not concerned about reducing diffusion of the jettable media in the food product. The printed image is secured to the edible paper and never contacts the melted chocolate. "The edible paper 10 is positioned face side 32 down in the mold 30 so that any substance poured in the mold 30 will not cover the image printed on the face side 32. Once the edible paper 10 is positioned within the mold 30, melted chocolate 36 is poured into the mold 30 and over a back side 34 of the edible paper 10."

(col. 4, lines 31-34) The melted chocolate only contacts the back side of the paper and never touches the printed image on the face side. Thus, Waters is not concerned about reducing diffusion of the jettable media in the food product.

For at least these reasons, amended claim 1 is patentable over Waters.

Amended claim 27 is patentable over Waters for at least the same reasons as amended claim 1.

Claims 4, 6-7, 11, 22-23, 25, 30, 38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waters (6376000) in view of Young (6536345).

Waters is taken as above however Waters is silent with respect to teaching an inkjet printer that the food product is ice cream (col. 6 line 6+), that the image is at a resolution of 50 dpi or more, cooling the food product to about 32F or less, that the food product has a viscosity of 50000cps or less or more specifically between 50 and 110 cps.

Young teaches providing an inkjet printer (col. 3 line 47+) capable of ejecting a series of drops for deposition on a substrate in a predetermined pattern (col. 3 line 66+) on a food product (col. 6 line 6+). Young continues by teaching that the food product is ice cream (col. 6 line 6+), in addition to teaching that the image (col. 6 line 31+) is at a resolution of 50 dpi or more (col. 6 line 1+). In addition, Young specifically teaches that the "virtually unskilled operative can produce decorated cakes to a high resolution." (col. 5 line 65+).

Therefore since both Water and Young teach printing on minimally viscous food products, since Waters teaches applying a coating to a melted surface where Young not only teaches high-resolution printing on edible substrates such as chocolate, as is also taught by Waters, but Young further teaches printing directly on minimally viscous substances such as water and obtaining a high resolution image, and since Young specifically teaches printing on edible substrates, where the viscosity of the edible substrate can range from solid at room temperature or highly viscous, all the way to a minimally viscous substrate such as water, one of ordinary skill in the art at the time of the invention by the applicant would have been motivated to combine the teachings of Waters and Young in order to provide decorated edible substrates of different viscosities thus producing an edible substrate which would be more appealing to a larger group of people, in particular children, due to its increased aesthetic appeal.

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Claims 4, 6-7, 11, 22-23, 25, 30, 38, and 40 depend from claim 1 or 27, and are therefore patentable for at least the same reasons as claim 1 or 27. For example, Waters fails to describe "after ejecting the media, reducing diffusion of the jettable media in the food product." Young does not disclose the feature lacking in Waters. For example, while Young states that the "[a]pparatus embodying the invention may be used in conjunction with any suitable edible substrate, e.g. . . . water . . .", Young, like Waters, is silent about "reducing diffusion of the jettable media in the food product." (col. 6, lines 6-9) Accordingly, claims 4, 6-7, 11, 22-23, 25, 30, 38, and 40 are patentable over Waters in view of Young.

Claims 9-10, 13-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waters (6376000) in view of Young (6536345) as applied above and further in view of Baker et al. (5938826).

Claims 9-10, 13-14, and 17 depend from claim 1, and are therefore patentable for at least the same reasons as claim 1. For example, Waters fails to describe “after ejecting the media, reducing diffusion of the jettable media in the food product.” Baker, like Waters and Young, fails to disclose this feature. Accordingly, claims 9-10, 13-14, and 17 are patentable over Waters in view of Young and further in view of Baker.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Waters (6376000) in view of Young (6536345) as applied above and further in view of Willcocks et al. (WO 01/94116).

Claim 8 depends from claim 1, and is therefore patentable for at least the same reasons as claim 1. For example, Waters fails to describe “after ejecting the media, reducing diffusion of the jettable media in the food product.” Neither Young nor Willcocks disclose the feature lacking in Waters. As explained in the previous replies, Willcocks only contemplates printing on foods in their final state, e.g., solid state. Willcocks describes printing on solid foods like “chocolate, cookies, M&M@s-type candy or other sugar shell candy, or hard candy, jelly beans, starch-based, savory snacks, and gelatin-based gummi and soft candies. Even ice creams and pet food are within the scope of the invention.” (Willcocks, p. 20, lines 12-16) Nowhere does Willcocks describe printing on a food product in a flowable state. It can only be inferred that the edible substrates in Willcocks remain in the same state before and after printing.

While Willcocks describes that “[t]emperature modulation will affect the surface energy properties of the ink and chocolate with lower temperatures lowering surface energy and reducing the tendency of an ink to spread across the chocolate surface,” Willcocks only describes this in terms of printing on solid foods. (p. 22, lines 24-28) Willcocks does not describe reducing diffusion of the jettable media in the food product (that is in a flowable state). Because Willcocks is printing on a solid surface, like a chocolate tablet, Willcocks is not concerned about reducing the diffusion of a jettable media in a food product. Accordingly, claim 8 is patentable over Waters in view of Young and further in view of Willcocks.

Claim 30 has been canceled. New claims 41-46 have been added and are supported by the specification at least on page 4, lines 5-11 and 16-24, and FIG. 2.

Canceled claims have been canceled without prejudice or disclaimer.

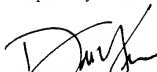
Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

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Date: _____

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